



Polymeric microfabricated fluidic device suitable for ultraviolet detection

Description of Technology: This invention relates to a polymer-based microfluidic device and its manufacturing methods. This microfluidic device is suitable for chromatographic and electrophoretic separations in which the detection of the components in the fluid is by means of ultraviolet (UV) spectroscopy and for chromatographic and electrophoretic separations in which the detection of the components in the fluid is by means of visible light, fluorescence, chemiluminescence or scattering or by means of electrochemical and electroconductivity detection.

Patent Listing:

1. **US Patent No. 7,150,815**, Issued December 19, 2006, "Polymeric microfabricated fluidic device suitable for ultraviolet detection"

<http://patft.uspto.gov/netacgi/nph-Parser?Sect2=PTO1&Sect2=HITOFF&p=1&u=%2Fnetacgi%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&d=PALL&RefSrch=yes&Query=PN%2F7150815>

Market Potential: Although prior art polymeric materials suffer certain deficiencies, they are becoming an increasingly popular choice for fabricating microfluidic devices. Prior art polymeric materials are not sufficiently transparent in the ultraviolet. Polymeric materials suffer from the deficiency of lower thermal conductivity than silicon and glass, the original materials of construction for microfluidic devices. A common need for all analytical devices, particularly devices employing ultraviolet detection, is increased sensitivity. The present invention overcomes these deficiencies.

Benefits:

- More transparent in the ultraviolet
- Better thermal conductivity
- Increased sensitivity of analytical devices

Applications:

- Microfluidic devices

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